09533263 "03700

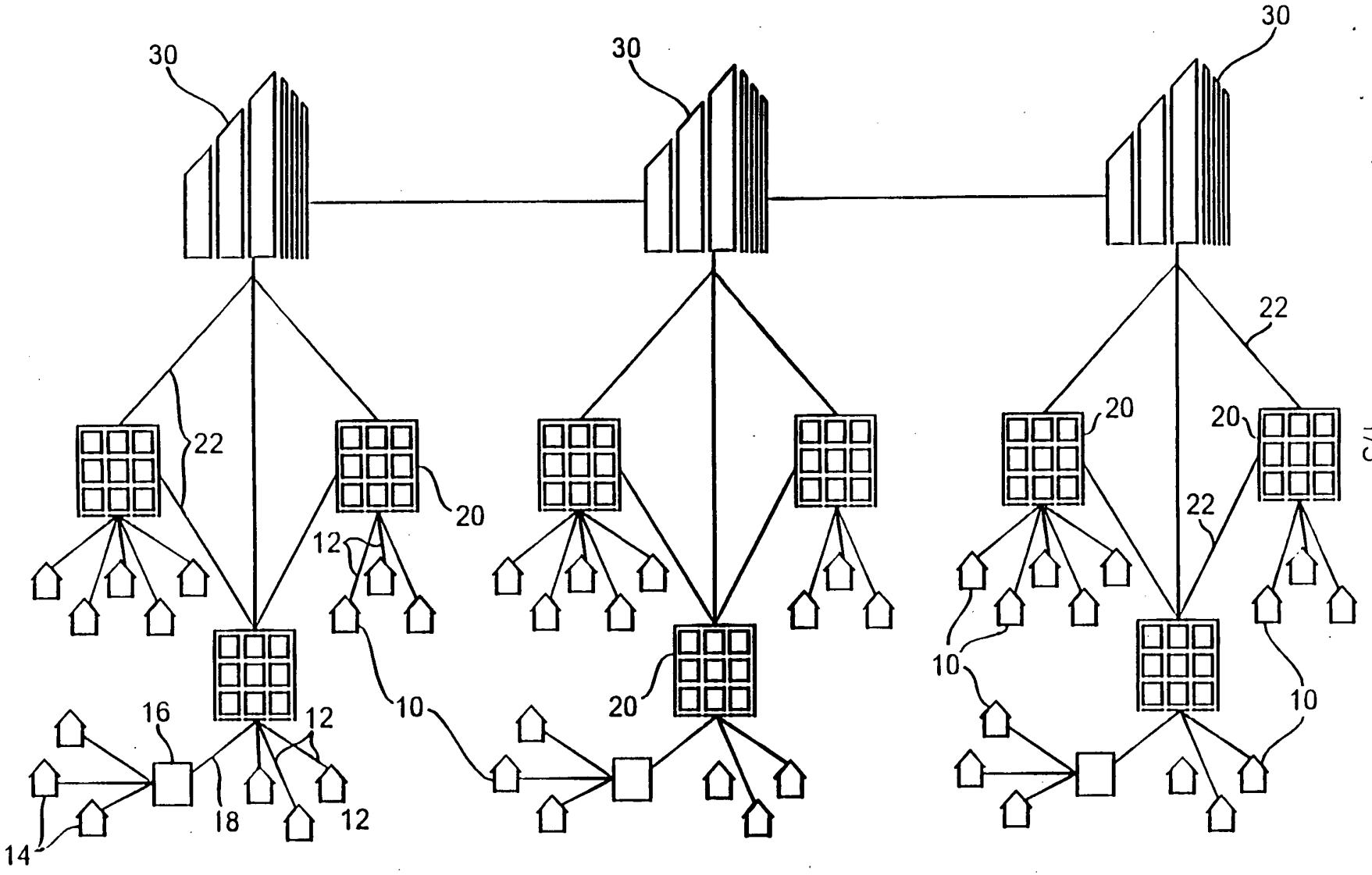


Fig. 1

0027E0 E92EE560

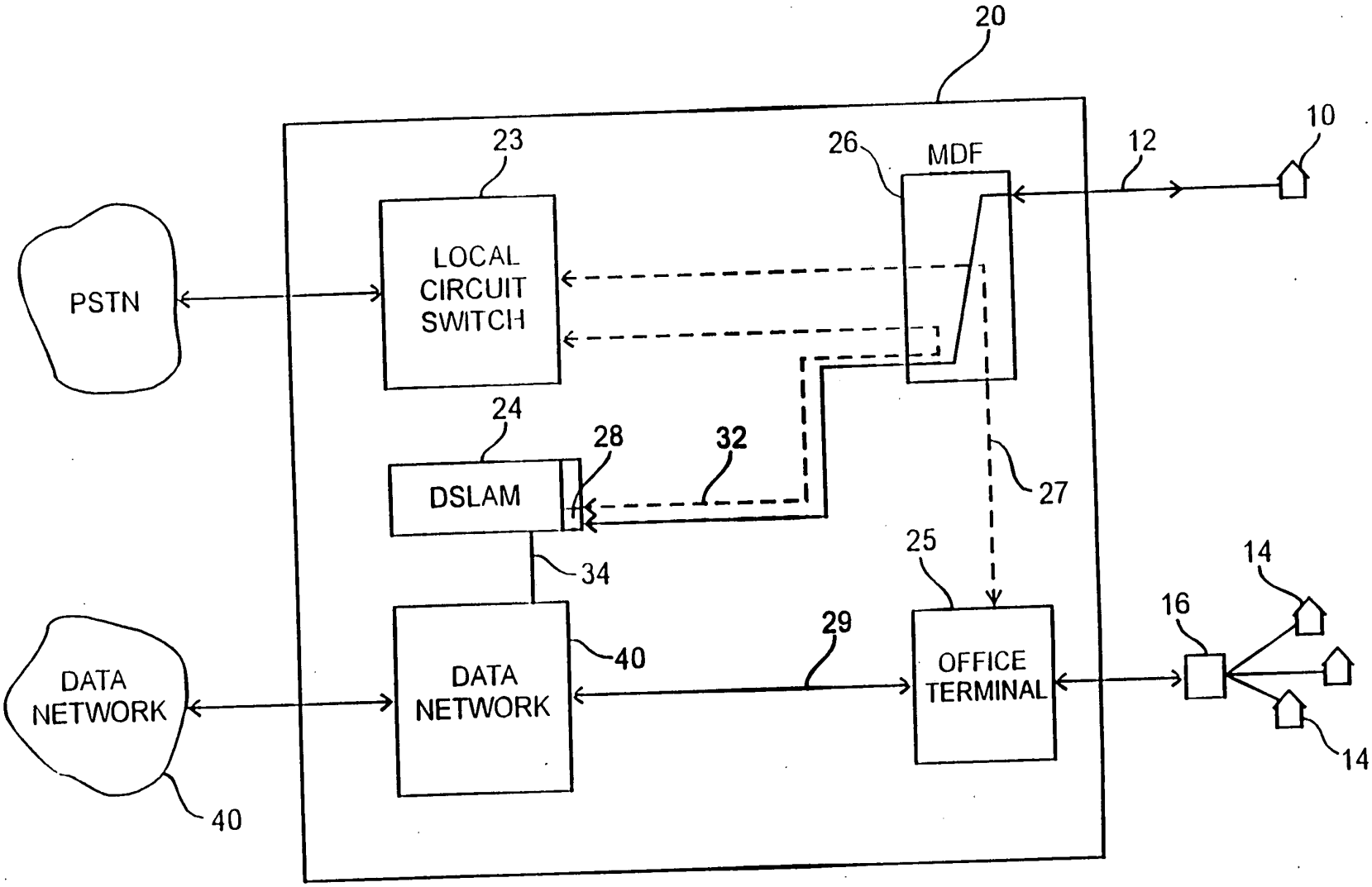


Fig. 2

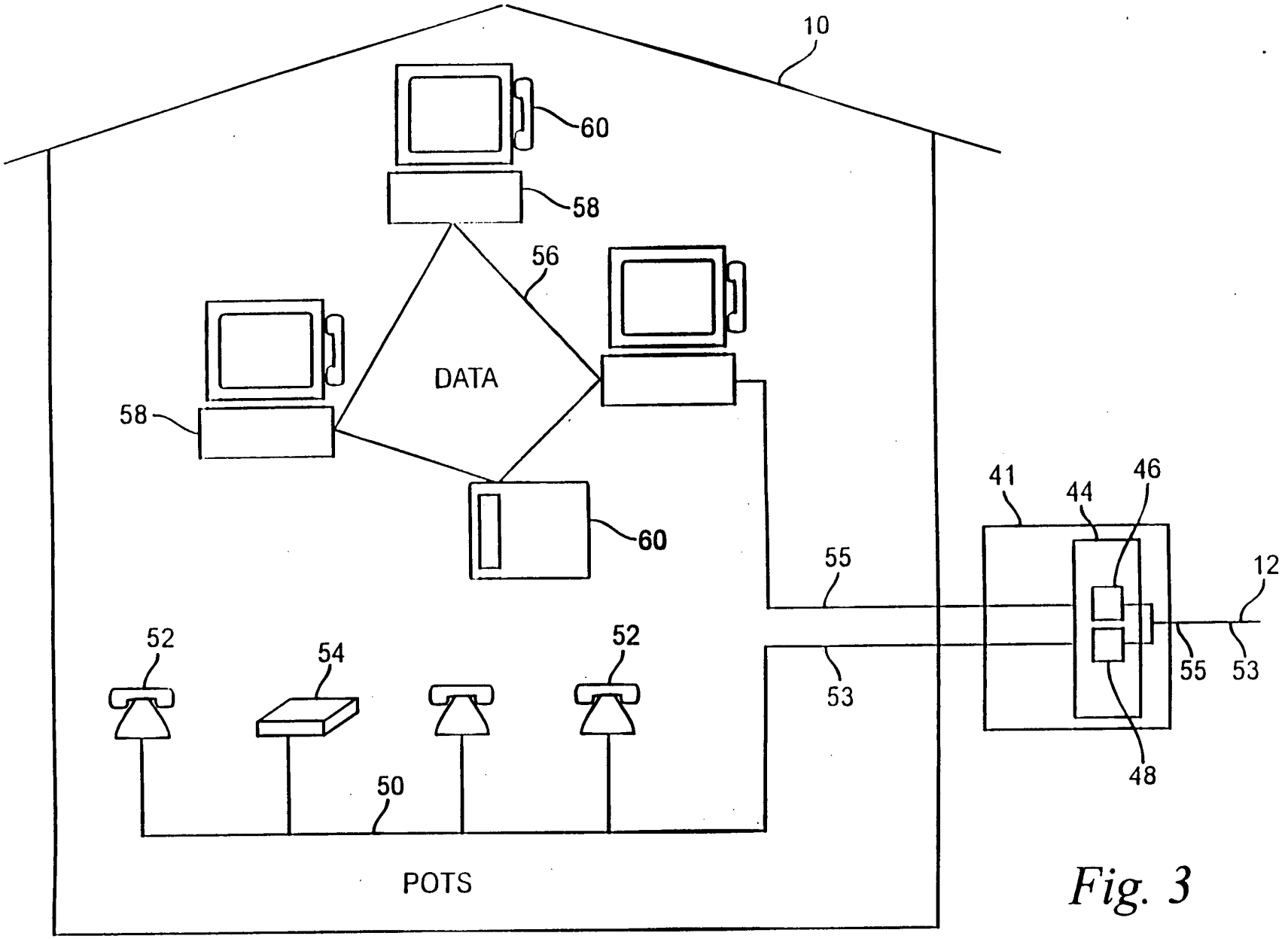

SUBSCRIBER LOCATION
10
60
58
56
DATA
58
60
41
44
46
55
12
52
54
52
53
55
53
50
48
POTS

Fig. 3

00ZTE0*E92E6560

TANDEM LOCATION

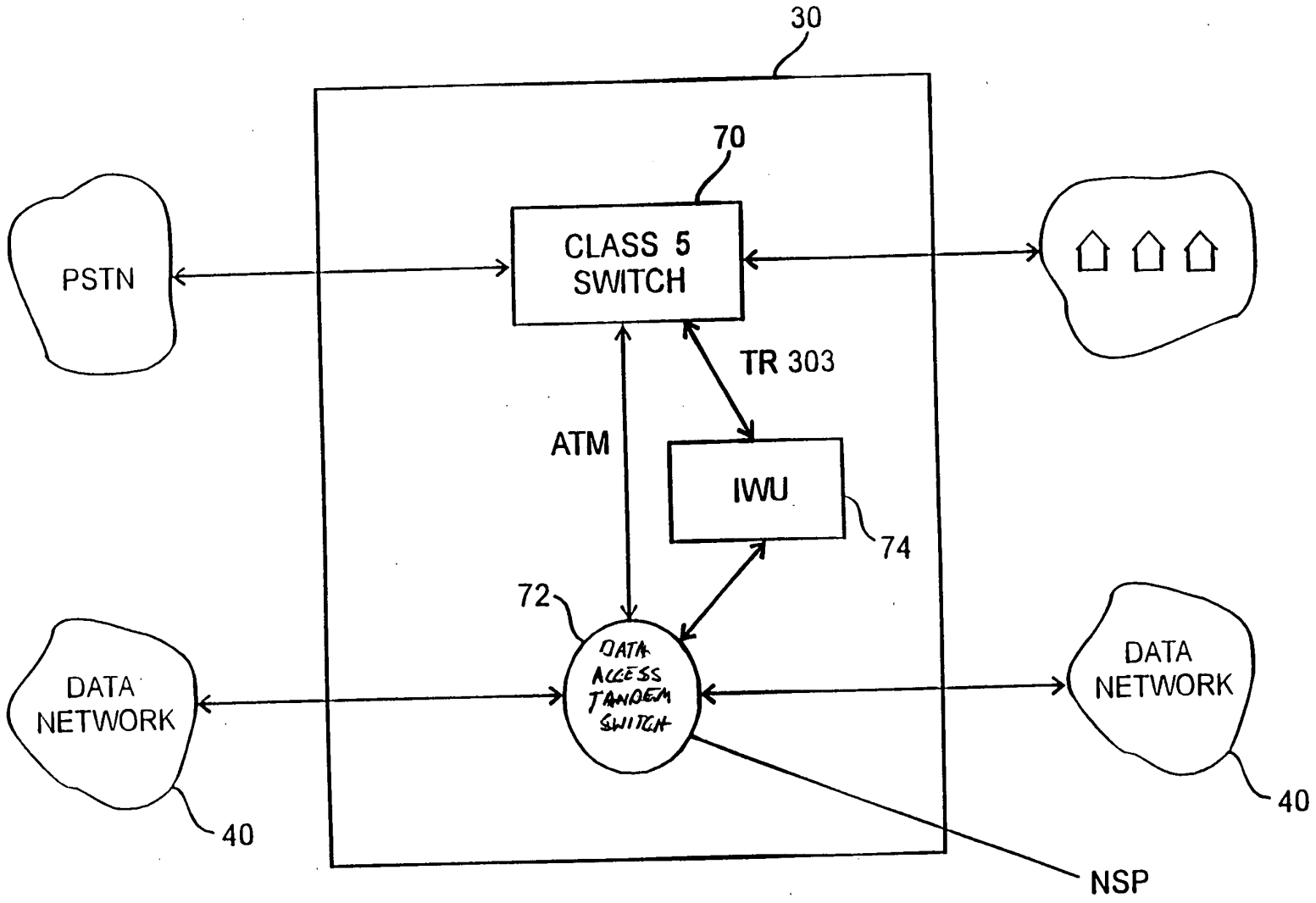


Fig. 4

09532693 "031700

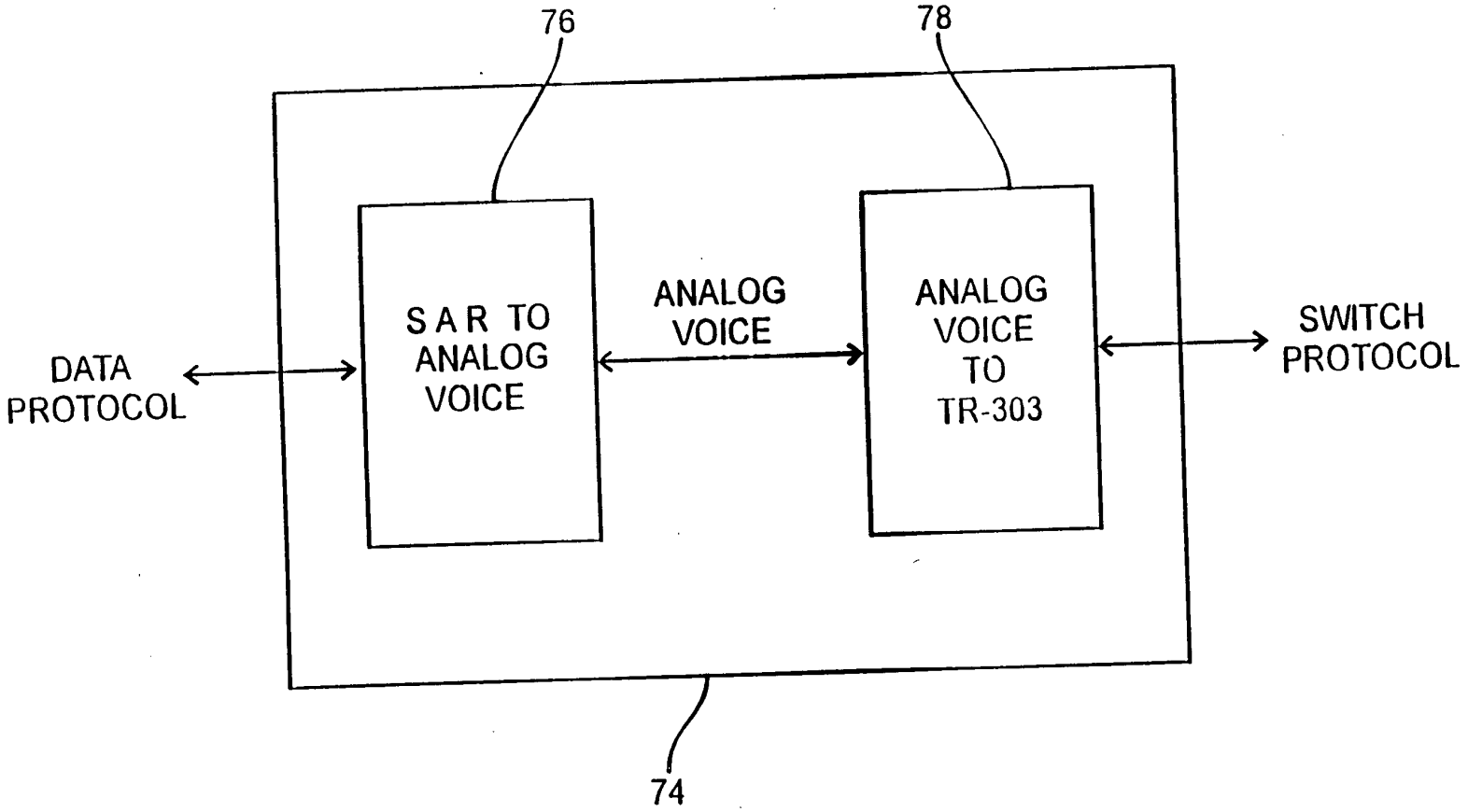


Fig. 5

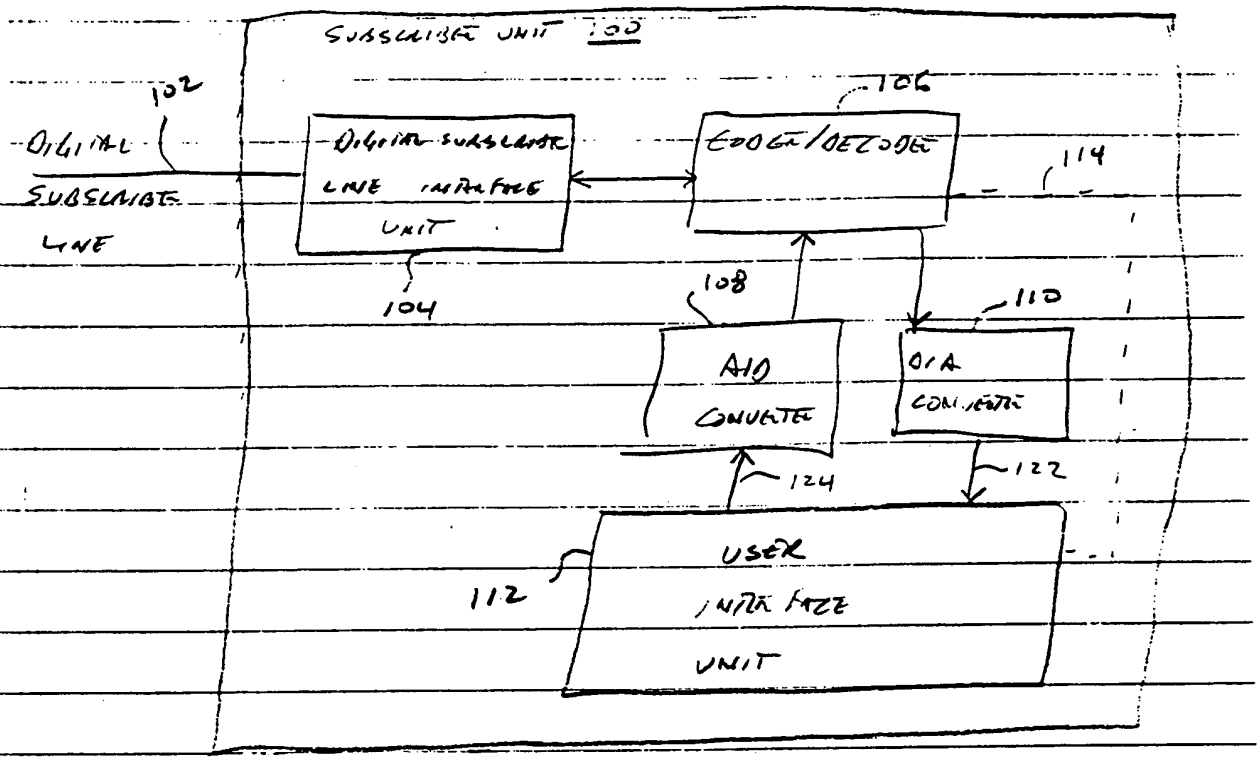

SUBSCRIBER UNIT 100
102
DIGITAL SUBSCRIBER LINE
DIGITAL SUBSCRIBER LINE INTERFACE UNIT
104
106
CODEC/DECODER
114
108
A/D CONVERTER
110
D/A CONVERTER
122
124
USER INTERFACE UNIT
112

Fig. 6

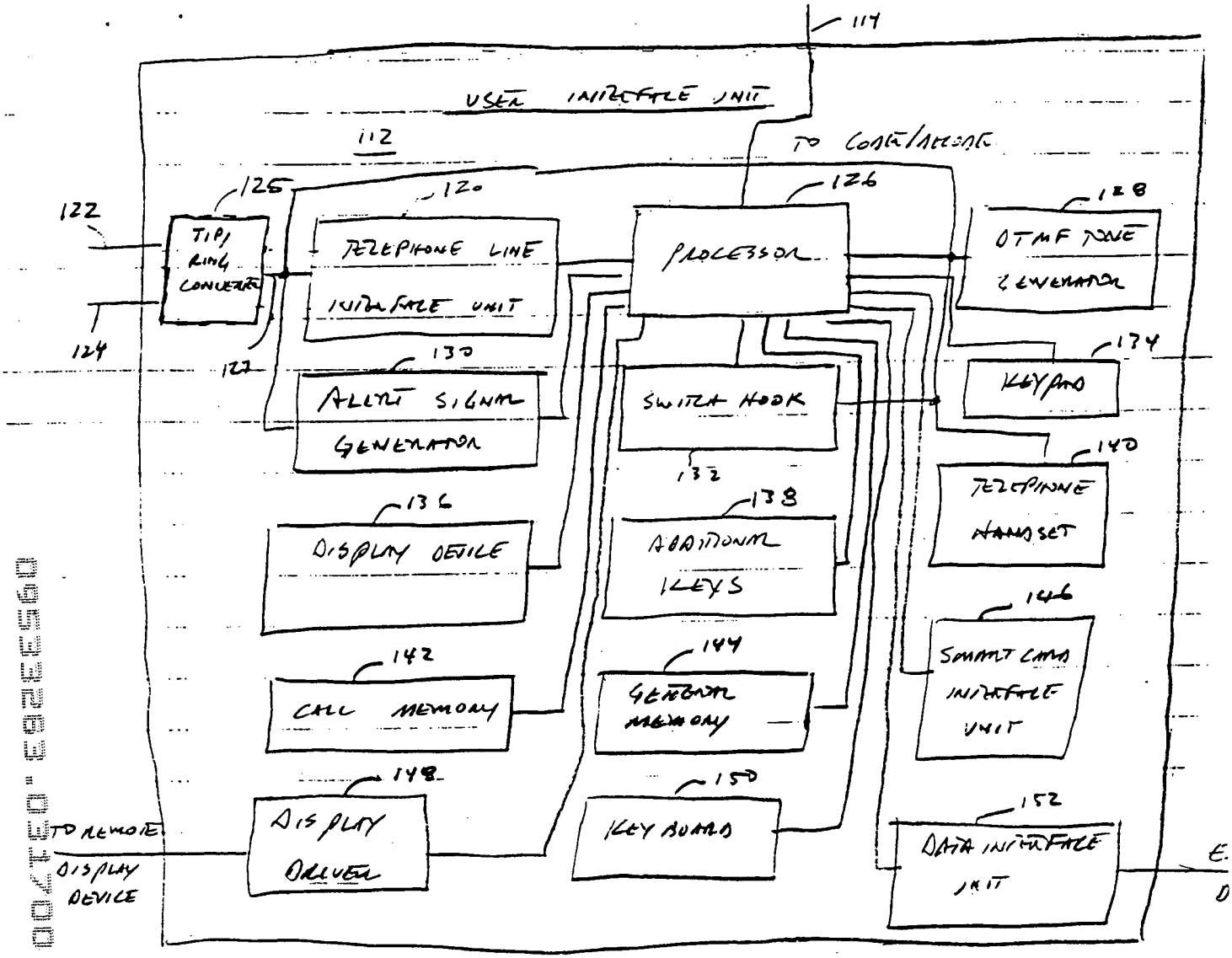

114
USER INTERFACE UNIT
112
TO CONTROL/ACCESS
122
126
TIP/RING CONVERTER
120
TELEPHONE LINE INTERFACE UNIT
126
PROCESSOR
128
DTMF TONE GENERATOR
124
127
130
ALERT SIGNAL GENERATOR
SWITCH HOOK
132
174
KEYPAD
140
TELEPHONE HANDSET
136
DISPLAY DEVICE
138
ADDITIONAL KEYS
142
CALL MEMORY
144
GENERAL MEMORY
146
SMART CARD INTERFACE UNIT
148
DISPLAY DRIVER
150
KEY BOARD
152
DATA INTERFACE UNIT
TO REMOTE DISPLAY DEVICE

FIG. 7

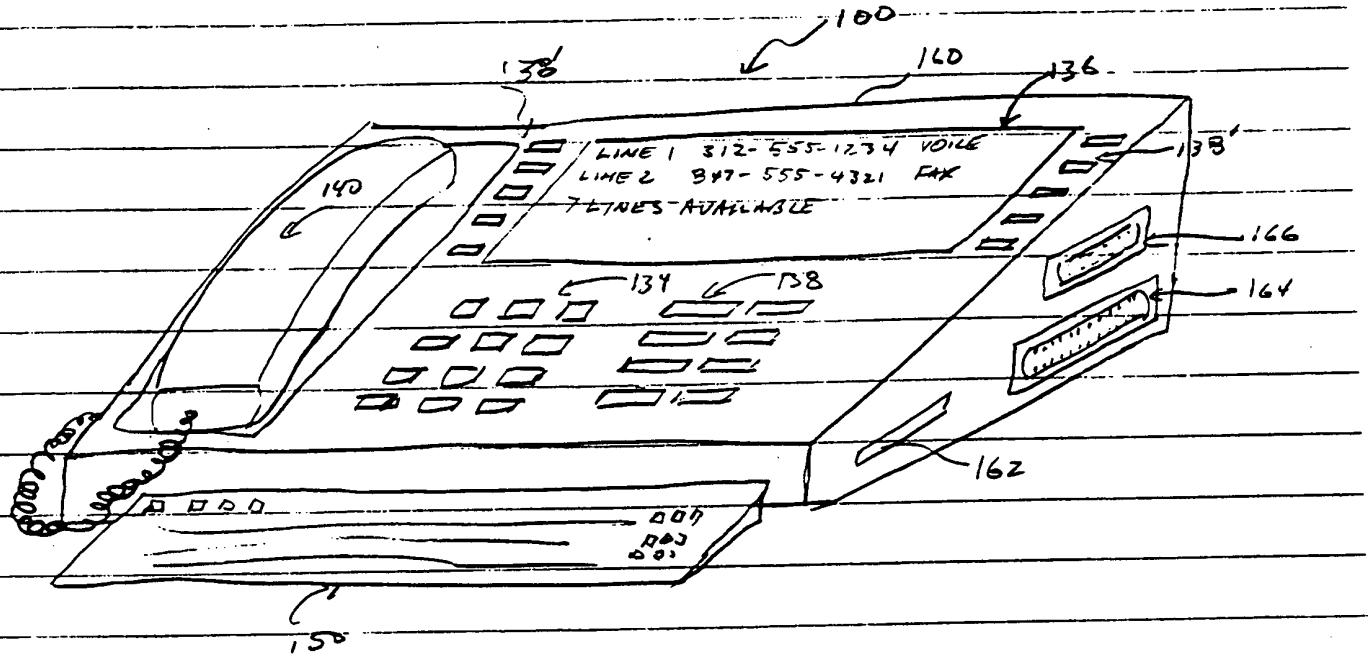

100
138
160
136
LINE 1 312-555-1234 VOICE
LINE 2 847-555-4321 FAX
7 LINES AVAILABLE
138'
140
166
134
138
164
162
150

Fig. 8

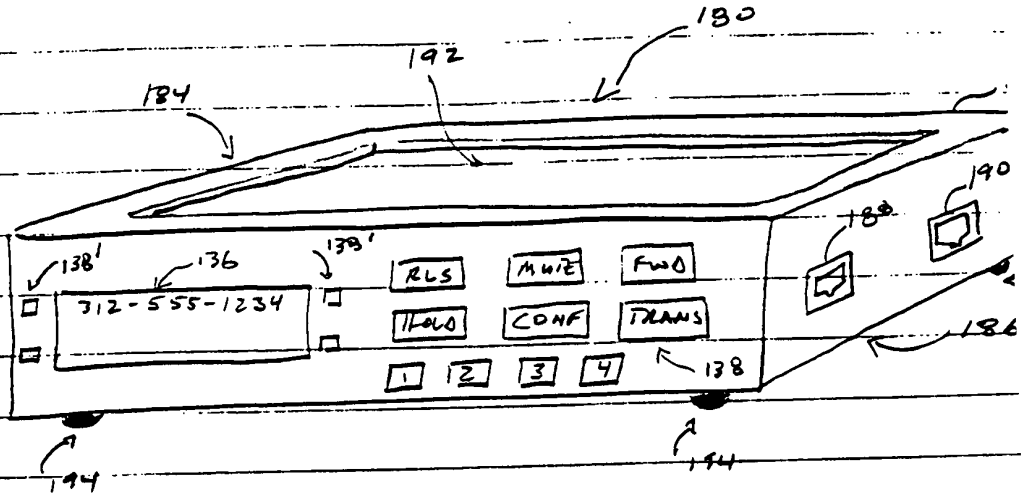
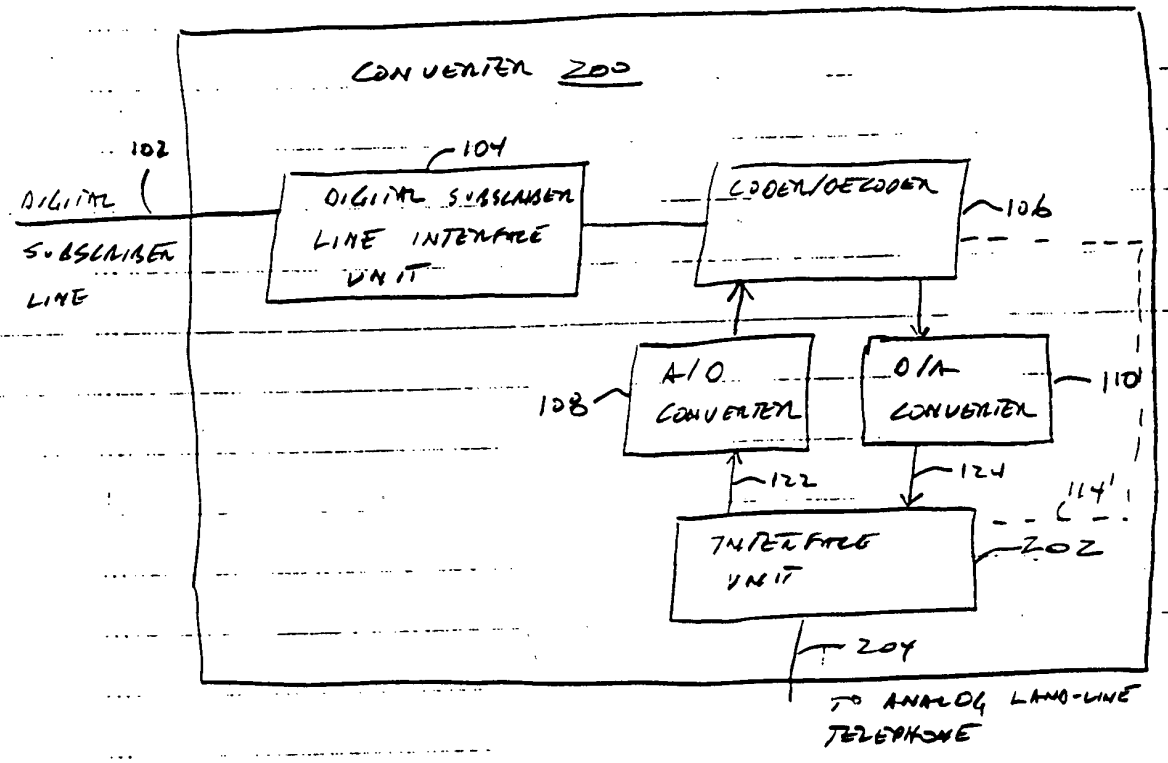

180
192
184
190
188
138'
136
139'
312-555-1234
RLS
MUTE
FWD
HOLD
CONF
TRANS
1
2
3
4
138
186
194
194

FIG. 9



0555260.0342200

Fig. 10

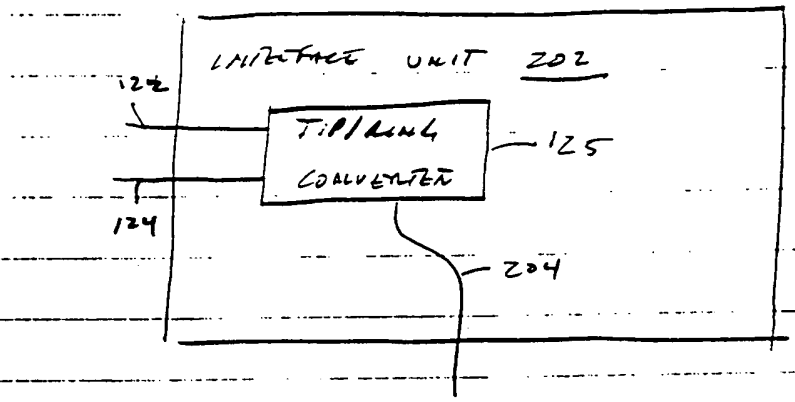


Fig. 11

D0 5 3 5 2 3 5 3 0 . 0 2 4 0 0

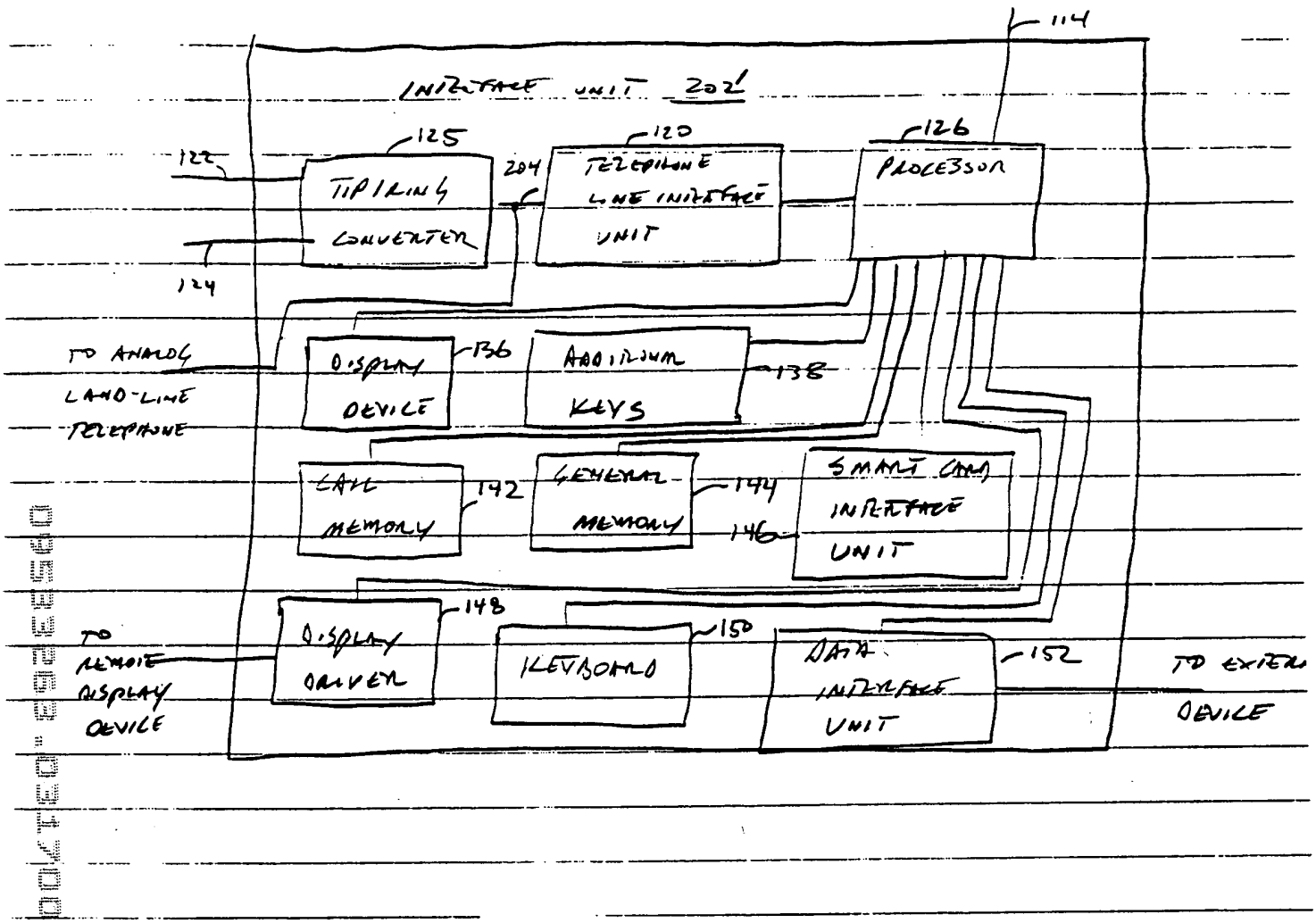

114
INTERFACE UNIT 202
125
120
126
122
TIP/RING CONVERTER
204
TELEPHONE LINE INTERFACE UNIT
PROCESSOR
124
TO ANALOG LAND-LINE TELEPHONE
DISPLAY DEVICE
136
ADDITIONAL KEYS
138
CALL MEMORY
142
GENERAL MEMORY
144
SMART CARD INTERFACE UNIT
146
DISPLAY DRIVER
148
KEYBOARD
150
DATA INTERFACE UNIT
152
TO REMOTE DISPLAY DEVICE
TO EXTERN DEVICE

FIG. 12

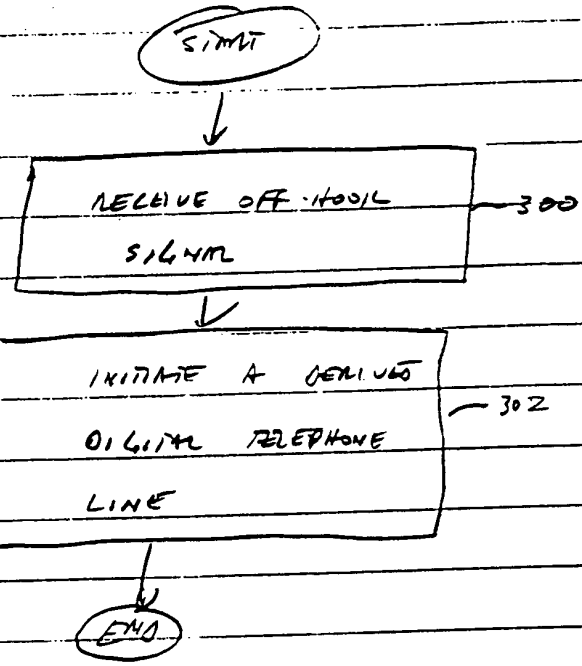

START
RECEIVE OFF-HOOK SIGNAL
300
INITIATE A DEDICATED DIGITAL TELEPHONE LINE
302
END

Fig. 13

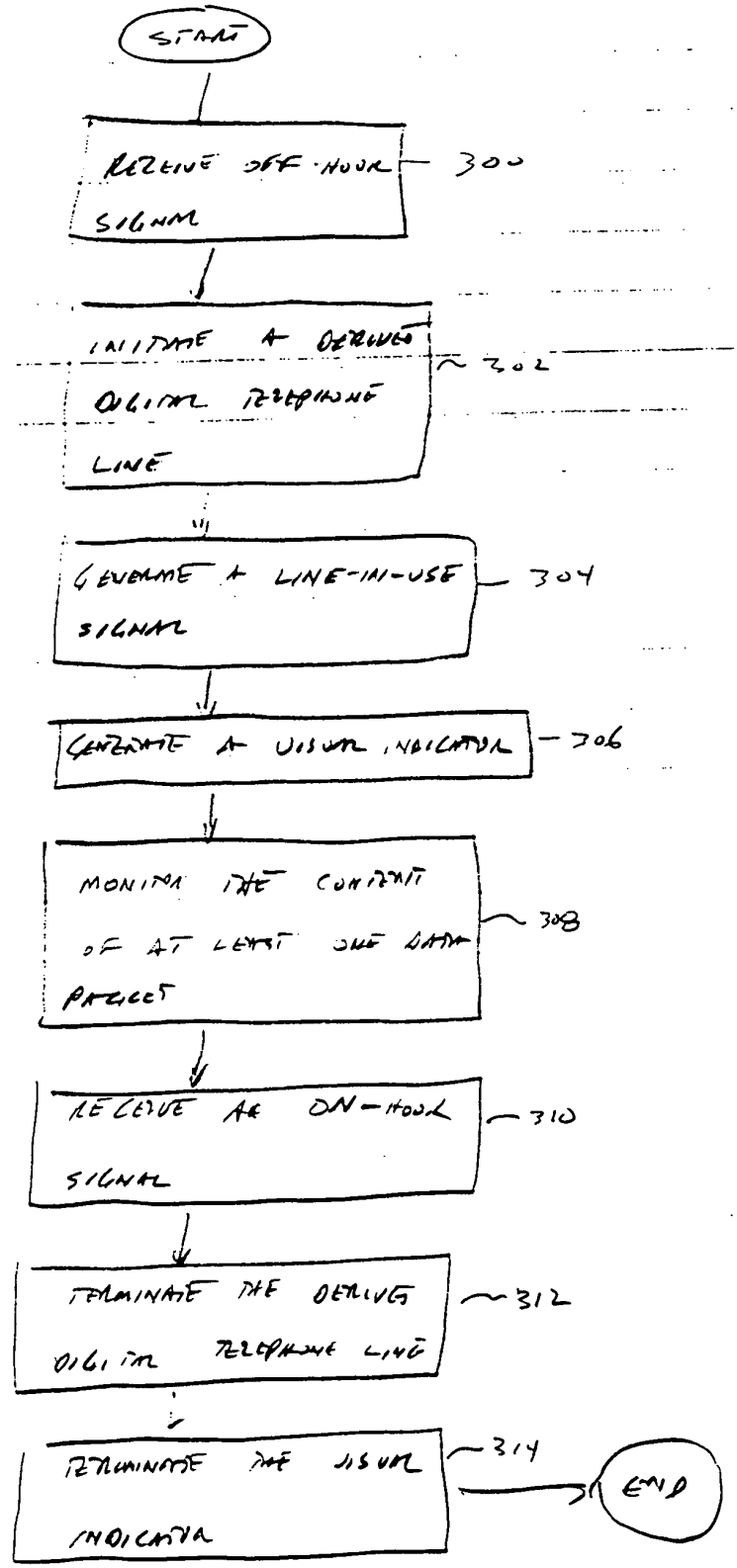


Fig. 14

0053003.0014400

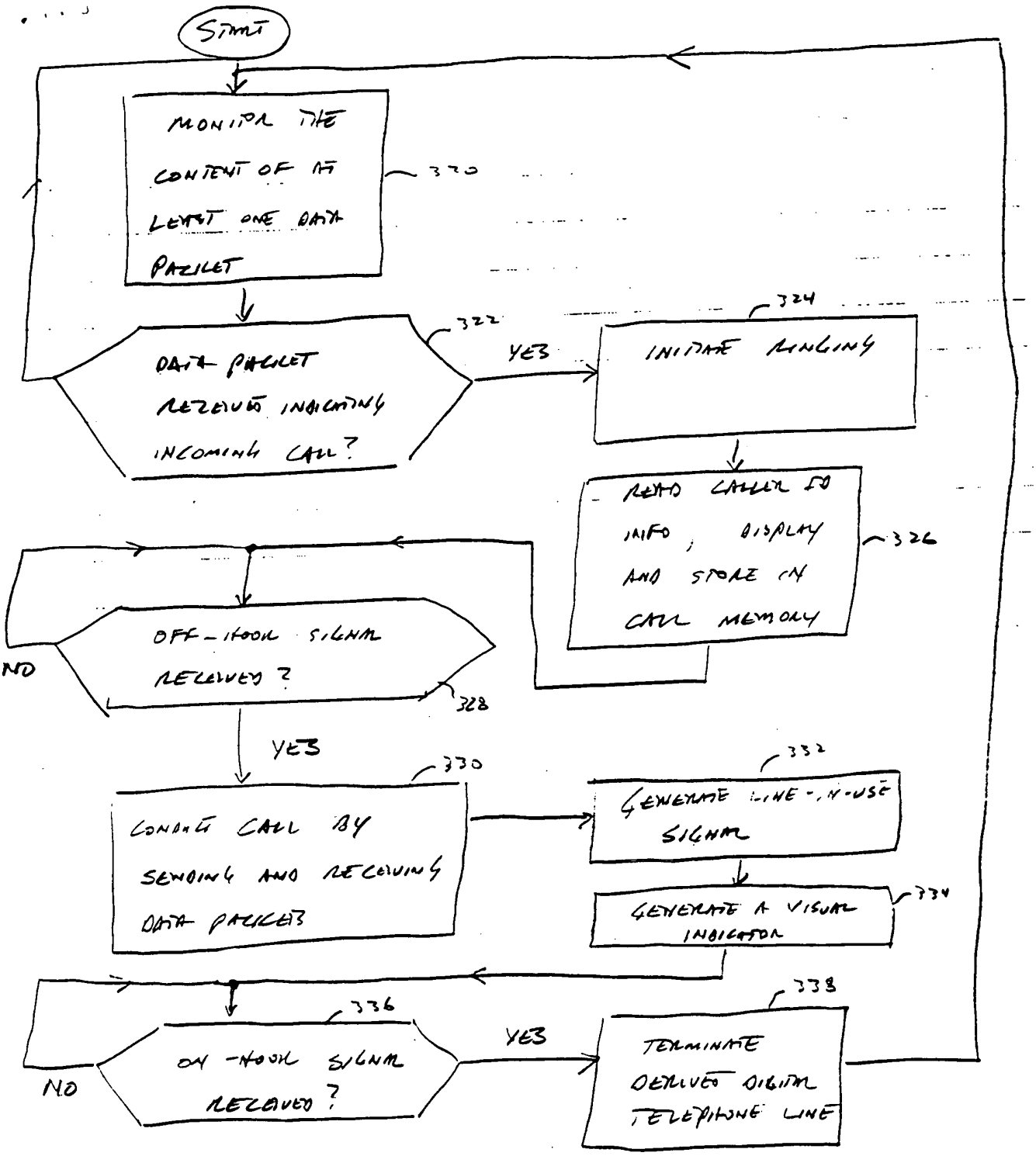

START
MONITOR THE CONTENT OF AT LEAST ONE DATA PACKET
320
DATA PACKET RECEIVED INDICATING INCOMING CALL?
322
YES
INITIATE RINGING
324
READ CALLER ID INFO, DISPLAY AND STORE IN CALL MEMORY
326
OFF-HOOK SIGNAL RECEIVED?
328
NO
YES
CONDUCT CALL BY SENDING AND RECEIVING DATA PACKETS
330
GENERATE LINE-IN-USE SIGNAL
332
GENERATE A VISUAL INDICATOR
334
ON-HOOK SIGNAL RECEIVED?
336
NO
YES
TERMINATE DERIVED DIGITAL TELEPHONE LINE
338

Fig. 15

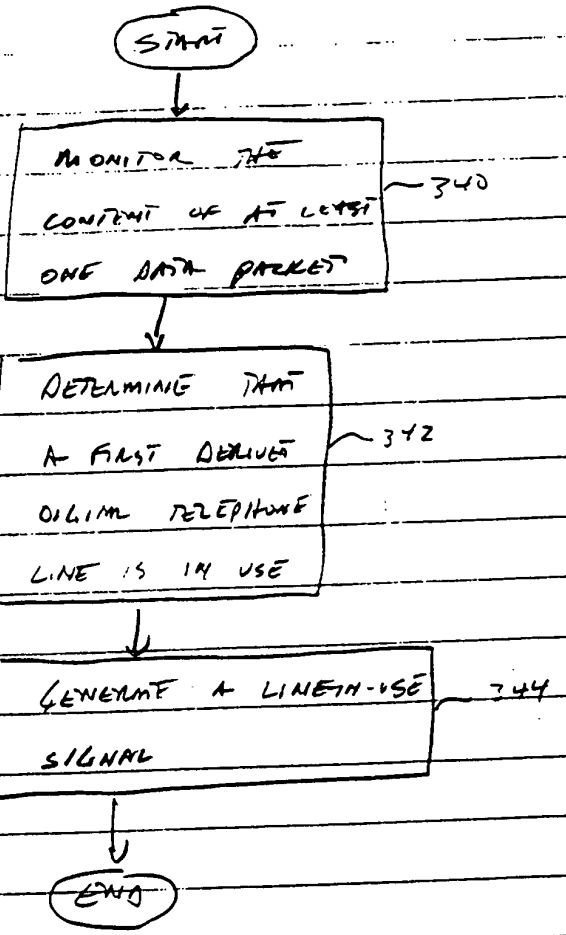

START
MONITOR THE CONTENT OF AT LEAST ONE DATA PACKET
340
DETERMINE THAT A FIRST DEVICE ON A TELEPHONE LINE IS IN USE
342
GENERATE A LINE-IN-USE SIGNAL
344
END

Fig. 16

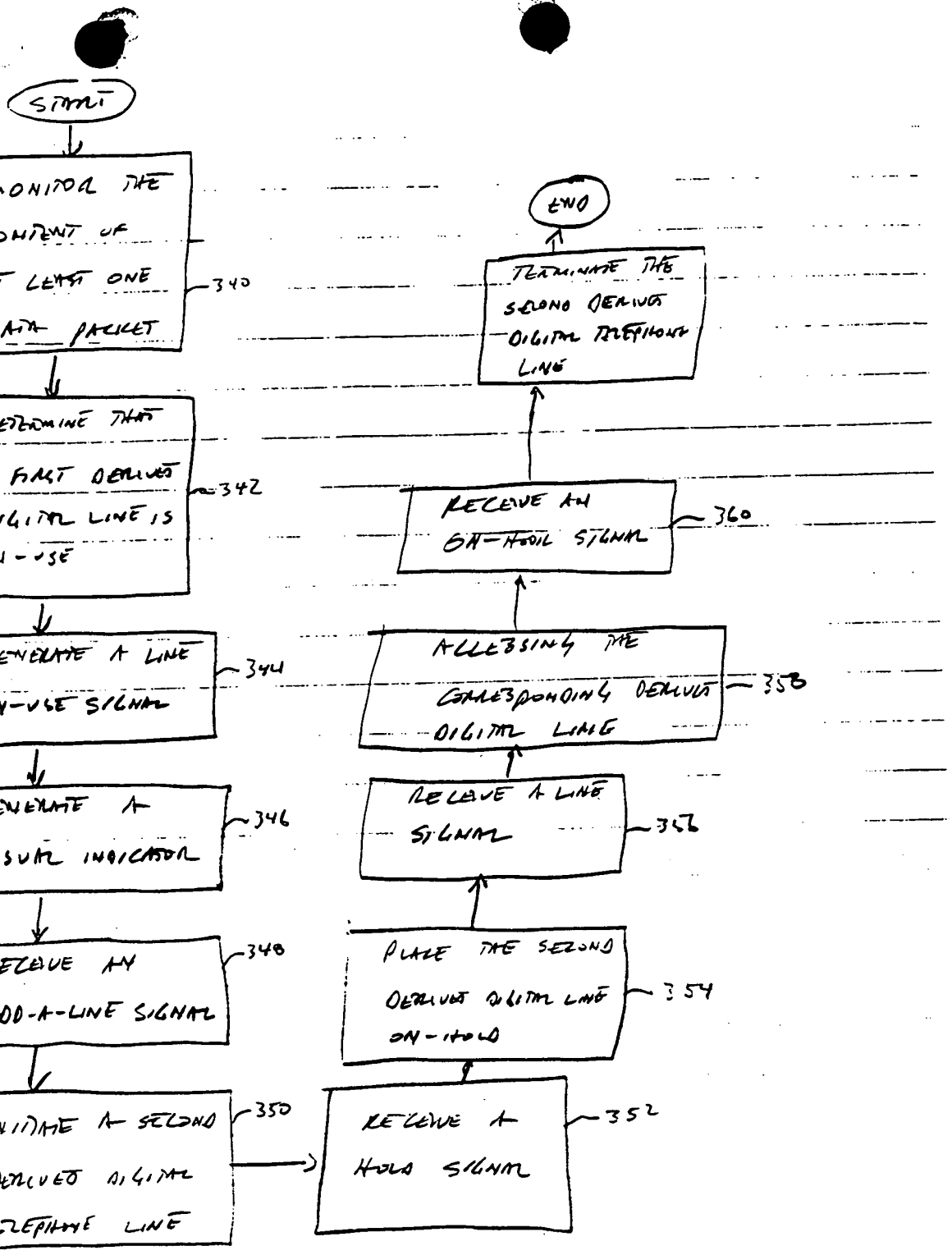

START
MONITOR THE CONTENT OF AT LEAST ONE DATA PACKET
340
DETERMINE THAT A FIRST DERIVED DIGITAL LINE IS IN-USE
342
GENERATE A LINE IN-USE SIGNAL
344
GENERATE A VISUAL INDICATOR
346
RECEIVE AN ADD-A-LINE SIGNAL
348
INITIATE A SECOND DERIVED DIGITAL TELEPHONE LINE
350
RECEIVE A HOLD SIGNAL
352
PLACE THE SECOND DERIVED DIGITAL LINE ON-HOLD
354
RECEIVE A LINE SIGNAL
356
ALLOCATING THE CORRESPONDING DERIVED DIGITAL LINE
358
RECEIVE AN OFF-HOOK SIGNAL
360
TERMINATE THE SECOND DERIVED DIGITAL TELEPHONE LINE
END

Fig. 17